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KENTUCKY

ANNUAL ECONOMIC REPORT

CBER

Kentucky Annual Economic Report 1988

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RICHARD W. FURST
Dean

MERL M. HACKBART
Associate Dean

Center for Business and Economic Research

CAROLYN S. LOOFF
Editor

LYNNE S. KELLY
Editorial Assistant

CAROL M. STRAUS
Data Consultant

JENNIFER GARNER
Production Assistant

BRIAN E. THROCKMORTON
Cover Design

HUGH H. BENNETT
ARTHUR W. FRANCIS
Data Preparation
Computer Graphics

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Contributing Authors

RONALD J. CARSON	Deputy Director, Governor's Office for Policy and Management, Commonwealth of Kentucky
MERL M. HACKBART	Professor of Finance and Public Administration and Senior Faculty Associate, Center for Business and Economic Research
CHARLES F. HAYWOOD	Professor of Finance, Chief Economist, and Senior Faculty Associate, Center for Business and Economic Research
CHARLES W. HULTMAN	Professor of Economics and Senior Faculty Associate, Center for Business and Economic Research
CAROLYN S. LOOFF	Executive Director, Center for Business and Economic Research, University of Kentucky
DONALD J. MULLINEAUX	Professor of Finance and holder of the duPont Endowed Chair for Financial and Banking Services, University of Kentucky
JAMES R. RAMSEY	Executive Director, Office for Investment and Debt Management, Finance and Administration Cabinet, Commonwealth of Kentucky

The *Annual Economic Report* is published each year by the **Center for Business and Economic Research (CBER)** in the College of Business and Economics of the University of Kentucky. Its purpose is to provide decision makers with current and accurate information about Kentucky's economy by highlighting economic and financial trends in the nation and the state. By supplying information about the state's economy, both past and present, the report provides a basis for analyzing where Kentucky may be headed in the future.

The publication of this report fulfills in part **CBER's** mandate to collect, maintain, analyze and disseminate Kentucky economic data. The opinions expressed here are, of course, those of the authors, and do not necessarily reflect the positions or opinions of the College of Business and Economics or the University of Kentucky. All data used in the report are the most current annual estimates available, and most are included in **CBER's** Kentucky Economic Information System. **CBER** also publishes a statistical abstract for Kentucky, which contains a more comprehensive compilation of social and economic data for the state and the nation. For more information about this publication or others, contact the Center for Business and Economic Research, 301 Mathews Building, University of Kentucky, Lexington, Kentucky, 40506-0047.

Carolyn S. Looff
Executive Director, Center for
Business and Economic Research

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FOREWORD AND OVERVIEW

by Merl M. Hackbart*

The publication of Kentucky's Annual Economic Report provides an excellent opportunity to reflect on the state and nation's economic progress and problems of the past, and to focus on the issues, trends, and economic challenges of the forthcoming year. Such reflection enhances our understanding of economic events and their impacts on individuals, households and institutions as producers and consumers of goods and services. Moreover, the enhanced understanding of such interactions permits us as citizens of the state and nation to more effectively "pick and choose" among alternative public policies which will affect our lives and our economic well-being in the short and long term.

The 1988 economic year provides a particularly interesting period to review, while 1989 provides an equally fascinating year of potential economic change and challenge with a new administration and major basic economic problems. Public debate in 1988, an election year, provided an unusual array of viewpoints regarding our past and contemporary economic performance. As normally occurs in election periods, there was unfortunately, a lack of effective consensus building regarding policy direction. Both candidates focused on personality and personal strengths and weaknesses rather than on economic policy direction and goals. As a consequence, we enter 1989 with a blurred understanding of where we are, and perhaps, a blurrier view of the short- and long-term future. The modest goal of this report, then, could be summarized as one of "clearing the view" of the past and as providing a basis for more clearly "peering into the future."

Various sections of this report on the national economy, the state economy, the financial sector, and the state's fiscal condition review the 1988 economic facts resulting from the interaction of international, national and state economic performance and public policy initiatives. The authors focus attention on issues faced, and issues waiting to be faced in 1989. The issues highlighted will most likely dominate our economic and financial policy agenda - both statewide and nationally - during the next calendar year.

In pursuing these economic assessment goals, the authors directly and indirectly review past and current economic performance of Kentucky as compared to other states and the nation in order to identify broader trends and interrelationships. For example, changes in federal tax and trade policy influence national and state economic performance equally. Similarly, changes in federal budgetary policy constrain and modify state expenditure plans and options. With such a focus on these interactions, economic trends and implications are highlighted, and hopefully, some of the "murkiness" of the past year will be distilled and we can more effectively visualize the future.

"...analysts in 1988 tended to focus on the long-run effects of continued large trade and budget deficits as opposed to short-term problems."

National Trends and Issues

The relatively strong performance of the economy in 1988 described by Dr. Haywood in the first section of this report tended to minimize presidential campaign debate regarding the fundamental economic issues facing the nation. However, the now famous "twin deficits" continued to concern the financial markets, especially during the last quarter, even though the short-term economic indicators (such as GNP growth, unemployment rates and inflation) provided a relatively bright view of the economy. Moreover, analysts in 1988 tended to focus on the long-run effects of continued large trade and budget deficits as opposed to short-term problems. At the same time, they expressed concern regarding contemporary issues such as the financial problems of banks and savings and loan institutions in certain regions of the nation. While the problems of financial institutions in the depressed energy regions were paramount, concern was also being raised regarding construction loans in the Northeast and certain business service economy loans for condominiums and other tourism-supported developments in the Southeast.

The cumulative effect of the depository institution difficulties has placed stress on the institutions which were established to guarantee the integrity of the nation's thrifts and banking institutions, including the F.D.I.C. (Federal Deposit Insurance Corporation) and the F.S.L.I.C. (Federal Savings and Loan Insurance Corporation). L. William Seidman, Chairman of the F.D.I.C., called for closing the worst 100 savings and loan institutions. (See The Courier Journal, December 1, 1988, B7.) He estimated that such a closing would cost about $30 billion and would require federal support, possibly the selling of bonds with the Treasury paying the interest.

Although Seidman's principal interest is in banking (as Chairman of the F.D.I.C.), his interest in the savings and loan issue emanates from the fact that some members of Congress have suggested that the F.D.I.C. be tapped to sup-

port the F.S.L.I.C. The F.S.L.I.C. is technically insolvent due to the demands placed on the agency by thrifts located in depressed energy-based economic regions which had large portfolios of loans with high default rates. Until now, depositors in such savings and loan institutions have been protected against losses by special supplementary F.S.L.I.C assessments placed on members to accommodate the "overdrawn" status of the basic fund. Some analysts predict that ultimately, between $30 and $80 billion will be required to restore the financial viability of thrifts in various stages of difficulty.

The ultimate resolution of the financial services sector problems adds a wild card dimension to the federal government's fiscal dilemma. If the "bailout" of the F.S.L.I.C. and/or the strengthening of the F.D.I.C. as back-up for the savings and loan problems requires direct Congressional appropriations, further difficulty in meeting Gramm-Rudman targets will be experienced.

As 1988 came to a close, Soviet Prime Minister Gorbachev's proposal to significantly reduce Soviet conventional forces in Europe provided a potential "window of opportunity" to reconsider military expenditure levels, along with the possibility of restructuring entitlements as part of a comprehensive budget cutback package. The bipartisan National Economic Commission (comprised of 6 Democrats and 6 Republicans) is due to report a set of expenditure and revenue measures to provide an initial basis for discussion between President Bush and the new Democratically controlled Congress in order to manage the federal deficit problem by March. Whether that deadline will be met or whether a consensus will be reached by this bipartisan group remains a question. If it is successful, the Commission report could provide a common ground to be used in attacking the overall budget deficit issue. Obviously, the financial markets will be watching these actions as the 1989 economic scenario unfolds.

Kentucky Trends and Issues

While the national economic trends (past and present) are omnipresent in Kentucky as well, certain state-specific issues must also be faced during the coming year. Dr. Hultman reviews the recent economic performance of Kentucky, which indicates continued, albeit slow, economic expansion. It also appears that Kentucky may be gaining slightly relative to the Southeast and the nation in employment and other economic indicators. At the same time, Professor Mullineaux reviews recent trends in the financial services sector, which indicate that Kentucky does not appear to be sharing proportionately in the expansion experienced nationally in this sector.

The two sections on the fiscal condition of the state by Jim Ramsey (the revenue side) and Ron Carson and Bill Hintze (the expenditure side), suggest that the states are incurring an increasing relative fiscal burden for many domestic programs as compared to the federal government as a result of federal domestic program cutbacks. Obviously, this increased burden places even greater fiscal management pressure on Kentucky's budget as Kentucky attempts to improve its relative position in education while meeting needs in human resource and criminal justice program areas.

For the longer term, basic structural changes in the economy emerge as a major economic concern. Carolyn Looff, in her section of the report, considers some of these changes and how they might affect economic well-being as well as urban-rural balance and economic performance. Such changes will not only affect the nature of future demands for educational programs and infrastructure but can also affect demographic and population growth trends as well. Consequently, such trends are worthy of continuous review and policy interpretation.

"So as we enter 1989, the economy appears to be maintaining its recent trend (both nationally and in Kentucky) of slow sustainable growth."

So as we enter 1989, the economy appears to be maintaining its recent trend (both nationally and in Kentucky) of slow sustainable growth. Meanwhile, the fiscal stress being faced by the federal and state governments is intense and inherently bound together. The overwhelming need of the federal government to retrench in light of the "twin deficits" tends to insure that difficult budget and fiscal policy decisions will emerge in Kentucky and other states as we accommodate federal cutbacks and attempt to enhance the quality of public programs in order to be competitive in tomorrow's increasingly international world economy.

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*Merl M. Hackbart is Professor of Finance and Public Administration and Senior Faculty Associate, Center for Business and Economic Research, University of Kentucky.

ECONOMIC OVERVIEW

by Charles F. Haywood*

The U.S. Economy

When we sat down a year ago to write the "Economic Overview" for our 1987 Annual Economic Report, the U. S. was still shuddering from the stock market's record-breaking decline in October 1987. Forecasters in general, ourselves included, were scaling down economic projections for 1988 and scaling up probability estimates that a recession would begin sometime in 1988. What we saw as the "consensus forecast" for 1988 real growth in Gross National Product (GNP) was lowered from a range of 2.0 - 2.5 percent to a range of 1.5 - 2.0 percent, and the probability of a recession beginning in 1988 was thought to be as high as 50 percent.

Concern about the adverse effects of the stock-market crash was soon dispelled by strong expansion in the U. S. economy in the early months of 1988. As shown in Table 1, real GNP grew at an annual rate of 3.4 percent during the first quarter of 1988. While well below the 1987 pace of expansion, an annual rate of 3.4 percent was strong in comparison to the long-term trend of GNP and especially in comparison to the latter half of 1986.

The adverse effects of the October 1987 stock-market crash, according to data that have since become available, were largely limited to the post-crash period in 1987 and the early weeks of 1988. Personal consumption expenditures, in real terms, fell at an annual rate of 2.1 percent in fourth quarter 1987 while GNP increased at the exceptionally high annual rate of 6.1 percent.

Another way of stating this is that final sales to consumers fell while final output continued to rise. The result was a sharp increase in inventories in late 1987 and early 1988. The stage was thus set for an "inventory recession." However, retailers moved to bring inventories back in line with sales by offering price concessions and other sales incentives instead of cutting back on new orders, which would have brought recession. When it became clear in early 1988 that the economy was not headed downward, consumers regained their confidence and returned to the market not only with current income intact but also with some extra dollars saved in the post-crash period in 1987 and the early weeks of 1988.

Figure 1 compares the quarterly estimates of annual rates of real growth in GNP from third quarter 1986 through third quarter 1988. This chart points to the fact that the rate of real growth, while at a relatively strong pace in 1988, slowed from the fourth quarter of 1987 through the third quarter of 1988.

Towards the end of the third quarter of 1988, the "consensus" was that the rate of increase in GNP would show further decline in the fourth quarter. Some forecasts put the expected annual rate of increase for the fourth quarter as low as 1.5 percent. However, the closing months of 1988 brought strong gains in various indicators, especially employment, suggesting that fourth-quarter GNP data, when available in early 1989, will show a real growth rate at least as high as the third quarter's revised annual rate of 2.6 percent.

"When it became clear in early 1988 that the economy was not headed downward, consumers regained their confidence..."

If the fourth-quarter comes in as high as 3.0 percent, it will result in real growth of 3.0 percent in GNP from fourth-quarter 1987 through fourth-quarter 1988. That would be generally regarded as a strong performance, especially for an economic expansion that became six years old in November 1988.

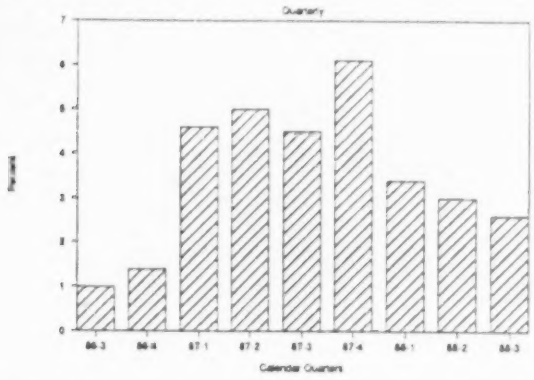
Some dimensions of the six-year expansion are presented in Table 2. The percentages shown in Table 2 are calculated from 1982 data nearest the end of the recession (November, fourth quarter, or year end) and from available 1988 data closest to the end of the six-year period. In most cases, data for September or October and third quarter 1988 were available.

Table 1. ANNUAL RATES OF CHANGE CONSTANT-DOLLAR GNP 3RD QUARTER 1986 - 3RD QUARTER 1988

Quarter	Percent (annual rate)
1986-III	1.0%
1986-IV	1.4
1987-I	4.6
1987-II	5.0
1987-III	4.5
1987-IV	6.1
1988-I	3.4
1988-II	3.0
1988-III	2.6

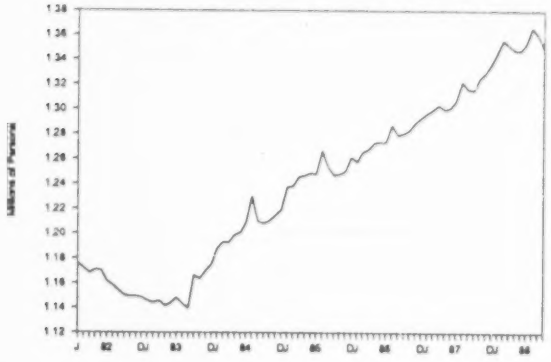
Source: Council of Economic Advisors

FIGURE 1. ANNUAL GROWTH RATES IN REAL GNP



Source: Council of Economic Advisors

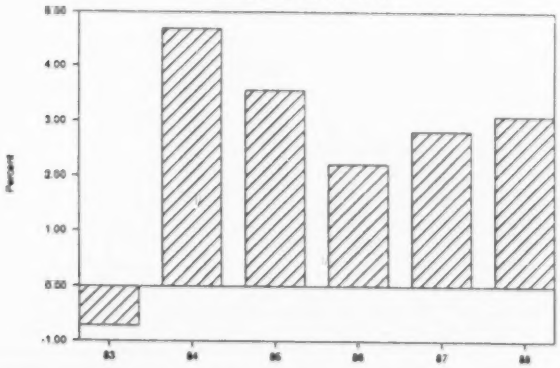
FIGURE 2. EMPLOYMENT IN KENTUCKY



Note: Data are for nonagricultural wage and salary workers.

Source: Leading Indicators of the Kentucky Economy

FIGURE 3. PERCENTAGE CHANGE IN KENTUCKY EMPLOYMENT



Note: Data are for nonagricultural wage and salary workers.

Source: Leading Indicators of the Kentucky Economy

A remarkable aspect of the six years of expansion has been the slow pace of inflation. Such absence of significant inflation is all the more remarkable because the U. S. economy appears to be pressing on the limits of its capacity, with high employment and capacity utilization and low unemployment.

The relatively low level of unemployment has caused concern that upward pressures on wage-rates will soon develop, causing inflation to accelerate, interest rates to rise, and the expansion to come to an end. Also, the low level of unemployment, when viewed with several other factors, may be indicating that the expansion is running out of gas. Important in sustaining the six-year expansion in the U. S. economy have been increases in consumer spending, largely dependent on rising levels of employment, decreases in personal saving, and mounting volumes of consumer installment debt. The potential of these factors to contribute to increases in consumer spending is clearly less than it has been.

Some slowing in the pace of economic expansion in 1989 would be generally regarded as a favorable development. An opportunity would thus be provided for capacity to be expanded, for growth in the labor force to catch up with employment growth, for saving to recuperate a bit, and for debt burdens to be brought back in line with income. By making a "soft landing," the economy might avoid recession. If, however, the economy continues to try to expand at a strong pace, a "boom-bust" dynamic will likely take hold, with inflation accelerating, interest rates rising, and the economy falling into an inventory recession. As 1988 comes to a close, the "consensus" is that a "soft landing" is more likely in 1989 than "boom-bust," but that view will not last long into 1989 if early reports indicate that the economy is continuing to press hard upon the limits of its capacity.

The Kentucky Economy

As economic developments in Kentucky are reviewed in several articles which follow in this report, we will limit our discussion to a few observations about employment trends. Figure 2 shows that nonagricultural wage and salary employment has been on a rising trend since mid-1983. There is some indication in the latter part of 1988 that the trend may be flattening out or even turning down. It is to be hoped that data for the closing months of 1988, when available in early 1989, will show

TABLE 2. SELECTED U.S. ECONOMIC INDICATORS PERCENTAGE CHANGES DURING SIX-YEAR EXPANSION

Indicators	1982	1988	% change
Disposable Personal Income			
current $ billion	$2,318.1	$3,421.5	47.60%
constant $ billion	2,276.1	2,762.2	21.36
Personal Saving			
current $ billion	143.0	127.8	-10.63
constant $ billion	141.1	102.2	-27.58
Personal Outlays			
current $ billion	2,174.9	3,293.6	51.44
constant $ billion	2,135.5	2,658.9	24.51
Corporate After-tax Profits			
current $ billion	104.3	162.7	55.99
constant $ billion	102.4	131.3	28.26
New Plant & Equipment Spending			
current $ billion	316.0	444.0	40.51
Gross Private Domestic			
Investment, current $ billion			
total	409.6	758.1	85.08
residential	114.7	226.5	97.47
nonresidential			
structures	137.6	142.3	3.42
equipment	217.3	345.5	59.00
Civilian Employment, million	99.1	112.6	13.62
Unemployment, million	11.9	6.8	-42.86
Average Weekly Earnings			
current $	270.3	322.1	19.17
constant $	167.0	166.7	-0.19
Industrial Production (1977=100)	99.6	138.2	38.77
Capacity utilization, percent	67.4	83.8	24.33
Business			
monthly sales, $ billion	335.9	508.6	51.41
inventories, $ billion	487.5	734.1	50.58
Retail			
monthly sales, $ billion	92.6	133.8	44.49
inventories, $ billion	126.6	214.3	69.27
Prices			
CPI-U (1982-1984=100)	98.0	119.0	21.40
PPI, finished goods (1982=100)	100.0	108.9	8.90
PPI, intermediate goods	100.0	108.3	8.30
PPI, crude materials	100.0	97.7	-2.30
GNP deflator (1982=100)	101.7	121.0	18.98
Consumer installment debt, $ billion	323.5	649.9	99.97
Interest rates			
3-month T-bill	8.0	7.5	-6.74
30-yr. Aaa bond	11.7	9.7	-16.70
NYSE index	79.8	151.2	89.64
D-J index	1,027.8	2,076.3	102.02
Federal finance, $ billion			
Budget outlays	745.6	1,065.8	42.95
Budget receipts	617.8	913.4	47.85
Total debt held by public	929.4	2,138.6	130.11
Net exports, $ billion	0.3	-121.6	

Source: Council of Economic Advisors

"..the Kentucky economy, unlike the U.S. economy, made little headway in reducing unemployment."

a continuation of the upward trend. Figure 3 shows the year-to-year percentage changes in the average level of nonagricultural wage and salary employment for 1983 through the first nine months of 1988. As indicated by the negative percentage for 1983, Kentucky lagged behind the U. S. economy in recovering from the 1982 recession. Weak demand for coal was an important factor affecting the Kentucky employment situation at that time. Relatively good gains in employment were achieved in 1984 and 1985, reflecting the strong expansion of the U.S. economy. Kentucky's employment growth slowed in 1986, consistent with U. S. trends. Although favored by increases in the rate of expansion of employment in 1987 and the first nine months of 1988, the Kentucky economy, unlike the U. S. economy, made little headway in reducing unemployment. The major urban centers in the state paralleled the nation and achieved relatively low levels of unemployment in 1988, but most nonurban areas in the state continued to report unemployment ratios well above the national average.

The outlook for the Kentucky economy in 1989 appears to be closely tied to the U. S. outlook. That is, the likely prospect is a slowing in the pace of growth in Kentucky in 1989.

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*Charles F. Haywood is Professor of Finance and Chief Economist, Center for Business & Economic Research, University of Kentucky.

THE KENTUCKY ECONOMY: A PERFORMANCE ASSESSMENT

by Charles W. Hultman*

The year 1988 represents the final year of the Reagan Administration which assumed office in 1980 with a strong commitment to return to a reliance on free market forces. The performance of the national economy has been mixed since that time. The unemployment rate of the labor force has been reduced, although on a gradual basis from a high of about 10.5 percent in late 1982 to about 5.4 percent in mid-1988. From 1980 through mid-1988, about 15 million new jobs were created in the U.S., inflationary pressures have been reduced and real GNP has expanded at an average annual rate of about 3 percent a year. Yet the federal deficit stands at about $150 billion for 1988, the trade deficit at about $134 billion, and the U.S. had shifted from the major creditor nation in 1984 to the major debtor nation by 1986.

Personal Income

How has Kentucky fared in all of this? Several economic indices might be noted, but one of the most important indicators of economic well-being is the change in per capita real personal income. As indicated in Figure 1, changes in real per capita income in Kentucky over the 1980-87 period have followed a pattern similar to that of the U.S. Stagnation is apparent during the first part of the 1980s followed by relative expansion since 1983. Growth during the early 1980s is well below the historical average; since 1984, it has reached a more acceptable rate.

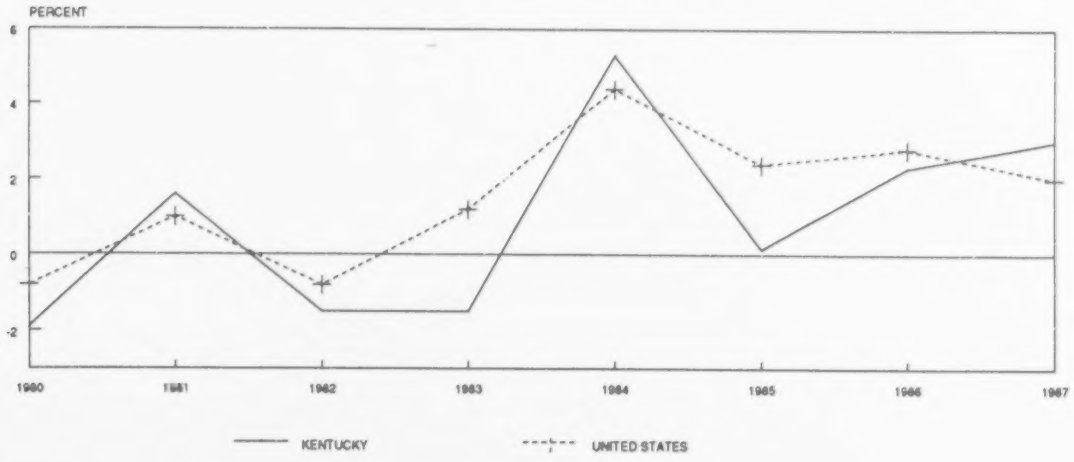
"....Kentucky's per capita personal income has been declining as a percent of national per capita income."

Since about 1977, Kentucky's per capita personal income has been declining as a percent of national per capita income—from 82 percent to about 78 percent in 1987. This is a reversal of a trend that characterized the early 1970s, during which time Kentucky was gradually improving relative to the national average.

It is also useful to examine changes among the counties in terms of per capita income. As might be expected, a ranking of counties by per capita income for 1986 differs little from a ranking for 1980. What is striking is the range of incomes by county; for 1986, for example, the median of county incomes was about $9,550, but the range was from a low of $5,300 to a high of $17,910.

Total personal income for Kentucky (the broadest measure of economic activity) increased from $29.4 billion in 1980 to $44.9 billion in 1987. In real terms, personal income rose about 10.8 percent over this period of time. Table 1 indicates the composition of the change in terms of sources of income. Wages and salaries, the largest component of personal income, increased about 48 percent; dividends, interest and rent increased 90 percent. All other components of income increased as well.

FIGURE 1. CHANGES IN PER CAPITA REAL PERSONAL INCOME KENTUCKY AND UNITED STATES, 1980-1987



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 1. COMPONENTS OF KENTUCKY PERSONAL INCOME, 1980-1987
(millions of dollars)

	1980		1987	Percent Change 1980-1987	
	Current $	Constant 1987 $	Current $	Current $	Constant 1987 $
Wages & Salaries	$16,902	$23,313	$ 24,969	47.7%	7.1%
Other Labor Income	1,960	2,703	2,527	28.9	-6.5
Farm Proprietor's Income	651	898	762	17.1	-15.1
Non-Farm Proprietor's Income	2,375	3,276	3,632	52.9	10.9
Personal Adjustment for Social Insurance	-1,041	-1,436	-1,797	----	----
Residence Adjustment	58	80	337	----	----
Dividends, Interest and Rent	3,591	4,953	6,821	89.9	37.7
Transfer Payments	4,904	6,764	7,696	56.9	13.8
Total Personal Income	$29,400	$40,552	$44,947	52.9%	10.8%

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Unemployment

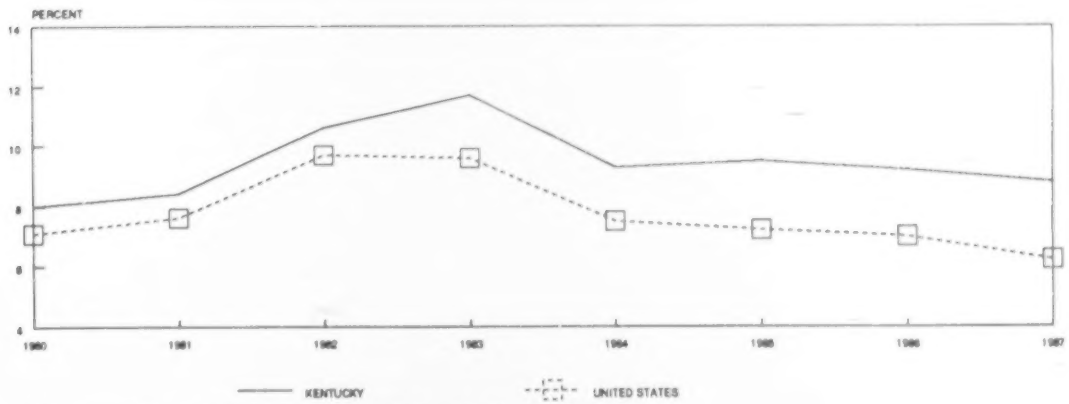
A second widely-used indicator of economic well-being is the unemployment rate of the labor force. Again (as indicated in Figure 2), the unemployment trend in Kentucky follows a pattern similar to that of the U.S., although it has ranged from 1 to 2 percentage points above the national level. Unemployment was particularly high during the recession years of 1982 and 1983, but generally throughout this period it has remained higher than what might be considered an acceptable rate, especially in Kentucky. It should be noted, of course, that especially during the 1980s, the national monetary policy was unusually restrictive in an effort to alleviate severe inflationary pressures. In addition, the low unemployment rates (less than 5 percent) that characterized both Kentucky and the U.S. during much of the 1960s may no longer be feasible as a result of structural changes in the world economy.

Kentucky's insured unemployment rate, a related indicator of the performance of an economy, also follows the national pattern but again is higher than the national average. This rate reflects jobs that are covered by unemployment insurance and offers an additional means of judging the performance of the economy. In Kentucky, approximately 75-80% of the labor force are covered by unemployment insurance; the additional laborers that are uninsured typically include self-employed workers and many agricultural workers. Both Kentucky's insured and total unemployment rates have remained relatively low since 1984.

Unemployment in Kentucky varies considerably among the different areas of the state, ranging from lows of about 4.0 percent to highs of about 22.0 percent depending upon the county. In general, those counties with high unemployment at the beginning of the 1980s continued with a bleak unemployment picture through 1987, with a few notable exceptions. In addition, and unfortunately, a relatively large group of counties experienced a severe deterioration in their employment picture over this period of time. Many of these counties are located in the eastern part of the state; a few are located in

Unemployment in Kentucky varies among the different areas of the state....

FIGURE 2. CIVILIAN UNEMPLOYMENT RATES, KENTUCKY AND UNITED STATES, 1980-1987



Source: U.S. Bureau of Labor Statistics, Kentucky Cabinet for Human Resources

the west central part of the state; many of them are heavy coal producers.

As noted in the following section, the unemployment situation within the state also relates closely to the industrial composition of the area. Mining employment, for example, declined at the national level over the period 1980-1987. The relative decline in Kentucky was more severe with a loss of about 13,000 jobs over the same period of time. Another major area of concern has been manufacturing. Nationally, manufacturing employment over the period remained about constant in absolute terms. Manufacturing employment in Kentucky peaked at about 300,000 in 1979, dropped to 283,000 in 1980, and by 1987, stood at 269,000. Kentucky's employment experience was relatively favorable in construction (an additional 10,000 jobs), finance, insurance and real estate (an additional 18,000 jobs); services (90,000 jobs); and retailing (an additional 50,000 jobs). The total number of jobs in Kentucky over the period 1980-87 rose from 1,619,000 in 1980 to 1,779,000 in 1987 or about 10 percent as compared with the national growth rate of about 15 percent.

Demography

Income and employment opportunities, as well as fertility rates, have affected the size and distribution of the population of Kentucky. The state experienced a net in-migration during most of the 1970s, but this situation reversed beginning in about 1980. Although outmigration has occurred (about 2.3 percent) during the 1980-1987 period, the natural population growth has been greater and as a result the state's population increased from 3,660,000 in 1980 to about 3,727,000 by 1987. Shifts within the state have also been significant; in absolute terms, a relatively large number of counties have experienced at least some growth in population. But the most rapidly growing counties in absolute terms include Boone, Bullitt, Daviess, Fayette, Hardin, Jessamine, Kenton, Laurel, Madison, Oldham, Warren, and Whitley.

In absolute terms, the number of counties losing population have been more limited, but declines in population have also been more dramatic; this includes Jefferson, Christian, Greenup, McCracken, and Boyd. Interestingly, these have not necessarily been high unemployment counties; they are counties with per capita incomes at or above the state median income. Generally, they are counties with an extensive urban-industrial base.

...The Kentucky economy presents a mixed picture.

Summary and Conclusions

In summary, the Kentucky economy, as well as the national economy, present a mixed picture since the early 1980s. Changes occurring since that time reflect not so much a trend toward deregulation and a return to free market forces but rather the result of a huge federal deficit, double digit inflation during the early 1980s, and an unusually restrictive monetary policy. Other factors contributing to the poor performance of the state include the sharp appreciation of the dollar during the period 1979-1984 and difficulty exporting products abroad, declining consumption of tobacco, environmental concerns regarding coal usage, and the combination of reduction in coal mining employment resulting from automation and low pricing for coal because of a world-wide glut of petroleum.

From a cyclical perspective, Kentucky appears to be more closely linked to the national economy than is the case with many other states. This is typical of states with a greater-than-average dependence on maufacturing. Yet as reflected in the change in per capita income and other economic indicators over the past several years, the state is not sharing in the overall growth experienced either in the southeast region or at the national level.

The recession of 1982-83 had a serious impact on the state. In some respects, the available data do not appear to reflect a complete recovery. There is some evidence that the state economy has gained in economic terms since late 1987 and that the trend will continue. Employment opportunities have developed in the Lexington-Georgetown area, spurred in part by the construction of the Toyota automobile assembly plant. Jefferson County, a major employment area, has experienced declining unemployment. In addition, the changes impacting Kentucky are perhaps as much secular or long term in nature as they are cyclical. This is particularly noticeable in the structural changes that are taking place in the U.S. and the world economy, and which, as noted in the following section, are related closely to changes in the composition of the state economy.

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*Charles W. Hultman is Professor of Economics, and Senior Faculty Associate, Center for Business & Economic Research, University of Kentucky.

THE CHANGING ECONOMY

by Carolyn S. Looff*

A structural transition is occurring in the nation's economy as the labor force is becoming more involved in producing services and information. Although job gains in the services-producing industries[1] have not necessarily occurred at the expense of manufacturing and other major goods-producing industries[2] (except perhaps agriculture), most increases in employment in the U.S. have been in the services-producing sectors. Employment in the goods-producing industries , on the other hand has remained relatively constant, though cyclical in nature. Further structural changes in the economy are also evident in the shift in jobs from non-metropolitan to metropolitan areas and in shifts seen within manufacturing from traditional to emerging industries.

Many of these structural shifts are also at play in Kentucky's economy, and most predictions suggest that these trends will continue. Given the southeast's typical dependency on more traditional manufacturing industries that are more susceptible to automation and foreign competition, the challenge will be for southern states to capture their share of service jobs to avoid lagging farther and farther behind. The challenge is particularly critical in Kentucky, given the state's history of low personal income, low levels of educational attainment, and relatively poor employment performance.

This section takes a look at Kentucky's economy in light of the changes in the national economy. It presents a review of trends in the services-producing industries, which include

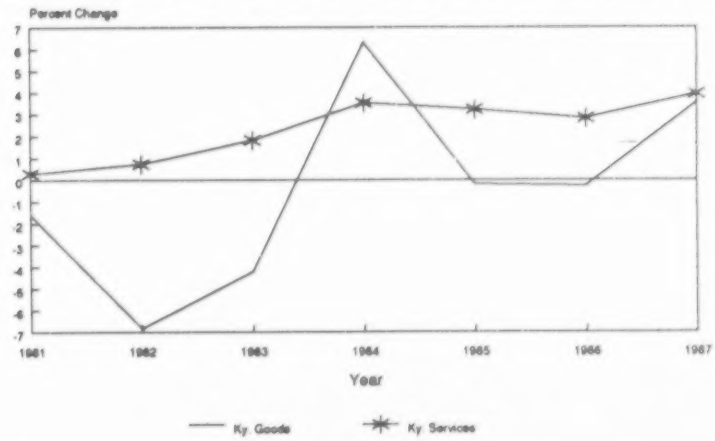
"Since the 1982 recession, 6 out of every 7 new jobs in the U.S. have been in the services-producing sector..."

such diverse sectors as transportation, communications, information, business services, health care, government, wholesale and retail trade, finance, insurance and real estate. It compares these services-producing industries with performance in the goods-producing industries of mining, construction, and manufacturing. Finally, it explores whether or not Kentucky follows the national trend of a shift to a services economy which tends to favor metropolitan over non-metropolitan areas.

The Shift to Services

Since the 1982 recession, 6 out of every 7 new jobs in the U.S. have been in the services-producing sector of the economy, with the largest job gains in retail trade; the finance/insurance/real estate industry; the health services; and business services such as computer and data processing. Figure 1 illustrates growth in employment in both the services-producing and goods-producing sectors of Kentucky. The percent change in services-producing industry employment has been consistently positive since the early 1980s, even during the recession of 1982. Growth in goods-produc-

FIGURE 1. PERCENT CHANGE IN EMPLOYMENT IN KENTUCKY GOODS-PRODUCING VS. SERVICES-PRODUCING INDUSTRIES



Source: U.S. Department of Commerce, Bureau of Economic Analysis

ing employment, on the other hand, has been cyclical with dramatic declines during the recession, strong growth between 1983 and 1984, followed again by declines but with an upturn in 1987.

Kentucky Shift to Services Lags the U.S.

Overall, growth in Kentucky's services-producing employment was impressive, increasing by 17.3 percent between 1980 and 1987, a gain of over 182,000 persons employed. Although Kentucky's employment trend mirrors the national trend, growth rates for Kentucky have typically lagged those for the nation. Between 1980 and 1987, growth in Kentucky's services sectors was less than national rates by about 5 percent.

TABLE 1. SERVICES-PRODUCING EMPLOYMENT IN KENTUCKY

	Actual Employment in Kentucky in 1987	Growth Rate 1980-1987 U.S.	Growth Rate 1980-1987 Kentucky	Additional Employment Had Kentucky Growth Rates Equalled National Growth Rates
Wholesale Trade	69,113	9.4%	4.2%	3,419
Commun/Transport/Utilities	86,897	8.3	7.2	886
Finance/Ins./Real Estate	100,408	32.8	21.9	8,936
Government	288,221	6.5	4.7	5,017
Retail Trade	295,152	19.2	19.5	-712
Services	399,560	38.3	31.1	22,179

Source: U.S. Department of Commerce, Bureau of Economic Analysis

With the exception of retail trade, employment growth in all of Kentucky's services-producing industries trailed national growth rates. Table 1 shows how many more jobs would exist in Kentucky in each of the services-producing industries had Kentucky's employment grown between 1980 and 1987 at the same rate as in the nation.

Table 1 also illustrates the relative sizes of each industrial sector, with the industries ordered according to total employment. The two largest services-producing industries, retail trade and services, are also two of the fastest growing industries. Unfortunately, these two industries are characterized by low wages (see Appendix Table 1). Wages are highest in the industries that tend to employ the fewest people such as communications/transportation/utilities, wholesale trade, and finance/insurance/real estate. So, while highest growth occurs in the largest industries, these industries are plagued by below-average earnings. However, it should be noted that higher-level, better-paid jobs constitute the fastest growing segment of services industry employment nation-wide. Regions of the country that are able to attract these higher paying service industry jobs will see greater gains in overall personal income.

The Goods Industries

Although the goods-producing sectors have experienced ups and downs since 1980, overall employment growth has been depressed, with fewer employed in producing goods in 1987 than in 1980, in both Kentucky and the U.S. Kentucky has fared considerably worse than the U.S. Overall, Kentucky's goods employment declined by almost 4 percent with a loss of about 16,000 jobs as compared to a national decline of less than 1 percent. With the exception of non-durable manufacturing, growth in Kentucky has lagged the nation in all goods-producing industries (mining, construction and durable manufacturing). In both Kentucky and the U.S., poor performance in durable manufacturing and declines in mining almost offset increases in non-durable manufacturing and construction.

To show how employment in Kentucky's major goods sectors differs from national trends, Table 2 shows what employment in each industry would have been in 1987 had Kentucky's employment grown at the same rate as the nation. As noted, Kentucky did experience more impressive growth in non-durable manufacturing than the nation (with particularly strong gains in the paper, rubber and plastics, and apparel industries). However, in the other major industries, national growth rates exceeded rates in Kentucky.

Since the trough during the 1982 recession, some sectors have enjoyed impressive growth. The construction industry, which was particularly hard hit in the late 70s and early 80s when interest rates soared, has rebounded with an almost 13

TABLE 2. GOODS-PRODUCING EMPLOYMENT IN KENTUCKY

	Actual Employment in Kentucky in 1987	Growth Rate 1980-1987 U.S.	Growth Rate 1980-1987 Kentucky	Additional Employment Had Kentucky Growth Rates Equalled National Growth Rates
Mining	44,639	-19.0%	-22.2%	1,815
Construction	94,543	23.1	12.7	8,754
Manufacturing	269,155	-5.8	-4.9	-2,561
Durable	145,374	-7.8	-9.2	2,170
Non-durable	123,781	-2.8	0.6	-4,140

Source: U.S. Department of Commerce, Bureau of Economic Analysis

percent increase in employment in Kentucky since 1980. However, Kentucky still has not kept pace with the nation with construction employment growth trailing the nation by over 10 percent. Manufacturing, especially non-durable manufacturing, has made a partial comeback. Yet, in 1987 there were still almost 14,000 fewer employed in the manufacturing sector in Kentucky than there were in 1980. Similarly, U.S. manufacturing employment has declined by almost 6 percent.

Mining: A Closer Look. Kentucky's mining industry, which is dominated by coal mining, suffered sizeable declines. In 1987, 36,019 people were employed in the coal mining industry, down 27 percent from 1980. Labor saving advances in mining technologies have led to increases in coal mining productivity yet with decreases in employment. Poor employment performance in mining is especially critical in Kentucky given the relative importance of mining to the state as compared to the nation. Almost 11 percent of all employment in Kentucky's goods-producing industries is in mining as compared to less than 4 percent in the U.S.

Regardless of the slower relative growth in Kentucky's goods-producing industries, the state is still more dependent on goods-producing employment than many regions of the country. Goods-producing industries comprise almost 25 percent of total non-agricultural employment in Kentucky, as compared to less than 22 percent in the nation. Since these industries are more susceptible to foreign competition and automation, this means that Kentucky is less buffered from international competition and changes in the economy than other states with higher service industry composition.

The Shift to Metropolitan Areas

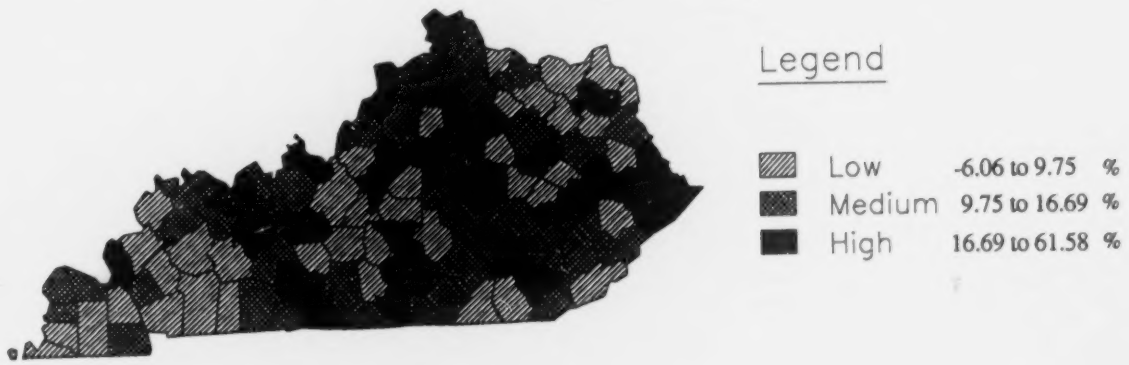
Large service employers are often concentrated in or near metropolitan areas because that is where the markets are located and access to a more skilled and educated work force is needed in many service industries. This is depicted in Figure 2 where it is shown that high growth in services industry employment overall predominates in the "Golden Triangle" area between northern Kentucky, Louisville, and Lexington and in certain other counties comprising or with proximity to metropolitan areas (like Daviess and Henderson counties around Owensboro and Evansville, Indiana, or Warren County, the home of Bowling Green).

"Large service employers are often concentrated in or near metropolitan areas..."

The figure also suggests, however, that services employment is increasing in a number of non-metropolitan areas as well. For example, despite the poor overall economic performance in certain eastern Kentucky counties, the services sectors do present some positive stories. In Pike county, for example, over 3,000 goods-producing jobs had been lost since 1980; 2,500 jobs were lost in the mining industry alone. However, gains of over 2,900 jobs in the services-producing industries (including 1,250 service sector jobs and 850 retail trade sector jobs), almost countered declines in the goods-producing industries.

Surprisingly high growth in services-producing employment in certain rural counties may be explained by the presence of a tourist attraction (like Lake Cumberland in Russell county); proximity to other metropolitan areas (like Carter county near Ashland, Kentucky); or a relatively high population (like Pike county, the seventh most populous county in the state). Proximity to a multi-lane highway and the presence of a community college or institution of higher

FIGURE 2.
PERCENTAGE CHANGE IN SERVICES PRODUCING EMPLOYMENT 1980-1986



Source: U.S. Department of Commerce, Bureau of Economic Analysis

education or, in general, a well-educated work force can influence service industry growth. This suggests that a well-developed infrastructure and human capital are important criteria for sustaining employment growth in the future.

Despite the relatively impressive growth in services-producing employment in areas like Pike county, this trend does not appear sufficient to put many of these counties on sound economic footing and some are still struggling to improve their economy. For example, in Pike county in 1986, unemployment still stood at 15.5 percent and per capita personal income was only $9,572. This represents 84 percent of the Kentucky level. Although certain services-producing industry jobs are high paying jobs (like physicians, for example), much of the increase in services-producing employment in rural counties is in the retail trade and service sectors. And as noted in Appendix Table 1, earnings in these services-producing industries are at the bottom of average earnings.

Summary

The shift to an economy dependent on knowledge and information is altering the industrial structure of the entire nation. Given this structural change and the potential for greater employment growth in the services-producing industries, economic development strategies that encompass both the goods-producing and services-producing sectors may make more sense than focusing exclusively on manufacturing. If a state is to prosper, it must capture its share of the nation's ever-expanding number of services-producing jobs. Policy makers interested in stimulating economic growth should not overlook the services-producing industries. Furthermore, one impact of the expanding service economy is that a number of new service-type jobs will demand a higher level of education than traditional jobs in manufacturing industries. An educated work-force will become increasingly important in the creation of good, higher-paying service industry jobs.

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*Carolyn S. Looff is Executive Director, Center for Business and Economic Research, University of Kentucky.

Footnotes

[1]Services-producing sectors include transportation/ communication/utilities, trade (wholesale and retail), finance/insurance/real estate, services (which include business services, agricultural services, and health services) and government. Note that "services" is a subset of the total services-producing sector.

[2]Goods-producing industries include mining, contract construction, and manufacturing; agricultural employment is excluded since farm employment data include a sizeable portion of persons whose primary occupation is in a non-farm sector. Therefore, agricultural employment data distort the overall picture.

THE FINANCIAL SERVICES SECTOR

by Donald J. Mullineaux*

As discussed in the preceding section of this Annual Report, during the 1980s the services-producing sector[1] of the U.S. economy was the primary source of growth in jobs and earnings. And within this sector, financial services -- banking, insurance, and brokerage services -- have been strong performers, especially on the earnings side.[2] The experience of Kentucky's financial services sector echoed the national scene, although growth rates in jobs and earnings fell systematically short of national figures. The strong performance of the industry masked some relatively sharp variation in job and earnings growth within the financial services sector, however.

The Broad Picture

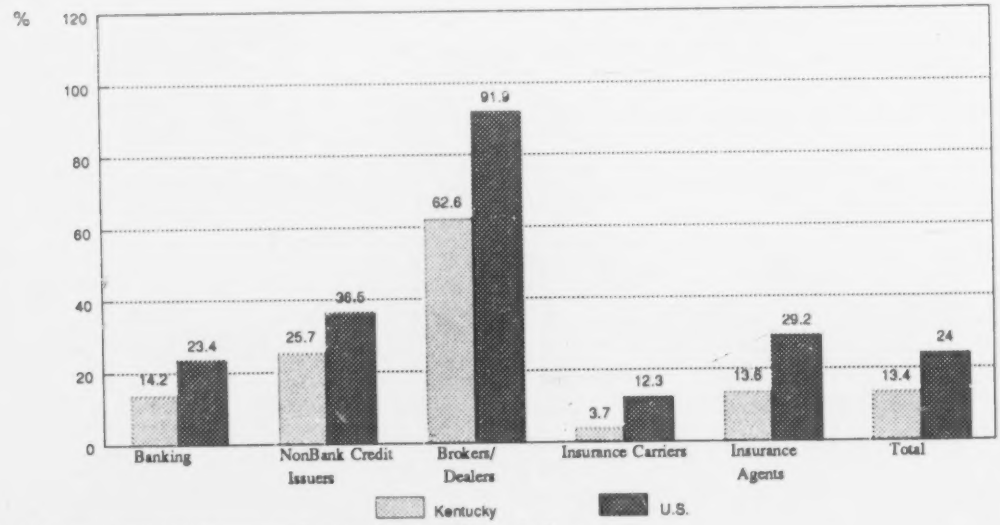
Over the period from 1980-87, the total number of services-producing jobs increased roughly 22 percent nationally and 17 percent in Kentucky. Nationwide, growth in financial services industry jobs surpassed services-producing jobs growth overall, increasing 24 percent. Yet, in Kentucky, growth in financial services jobs was less than that in the overall services-producing sector, a rate of only 13 percent. This was primarily due to relatively slow growth in employment at insurance carriers. Insurance underwriters increased their workforce 12 percent nationally, yet just 4 percent in Kentucky.

At the national level, growth in earnings in the financial services sector (126 percent) exceeded earnings growth in the broad services-producing category (78 percent). The Kentucky picture was similar with earnings growth in the financial services industries growing by 83 percent as compared to a rate of 62 percent in the total services-producing sector. However, Kentucky's earnings performance lagged the nation's in every sector of the financial services industry. Kentucky underperforms the nation in jobs and earnings growth in financial services primarily because the Kentucky economy has failed to expand in tandem with national business conditions, as the earlier article on "The Kentucky Economy: A Performance Assessment" shows. Growth in financial services tends to follow rather than lead economic expansion. Since the announcement concerning the Toyota manufacturing plant, for example, several Japanese banks have arrived in central Kentucky, and a new commercial bank has opened in Georgetown. High per capita personal income also encourages growth in financial services. Over the last year, three new bank charters have been sought for entry into the Lexington market which is characterized by relatively high per capita income.

A Sectoral Breakdown

While the overall gains in financial services employment and earnings were hefty over the last seven years, they were not evenly distributed across the various sectors of the in-

FIGURE 1. FINANCIAL SERVICES EMPLOYMENT GROWTH IN VARIOUS FINANCIAL SERVICES SECTORS, 1980-1987



Source: U.S. Department of Commerce, Bureau of Economic Analysis

dustry. The breakdown we examine here involves (1) banking (including trust companies), (2) nonbank credit firms (savings and loans, personal and business finance companies, and mortgage bankers and brokers), (3) brokerage firms (securities and commodities), (4) insurance carriers (underwriters of all types of insurance), and (5) insurance agents and brokers. These breakdowns correspond to SIC codes 60 through 64 respectively.

As Figure 1 shows, the strong (above-average) performers in terms of job growth, both nationally and at the state level, were brokerage firms and, to a lesser extent, nonbank credit issuers. Jobs in banking grew at approximately average rates, with the weakest performance turned in by insurance carriers. The sectoral employment picture was strongly related to the profit performance in each sector. A booming stock market propelled brokerage profits to record levels (prior to the October 19, 1987 market crash, at least), while bank profits languished over this period and property and casualty insurance underwriters suffered major losses in the first half of the decade.

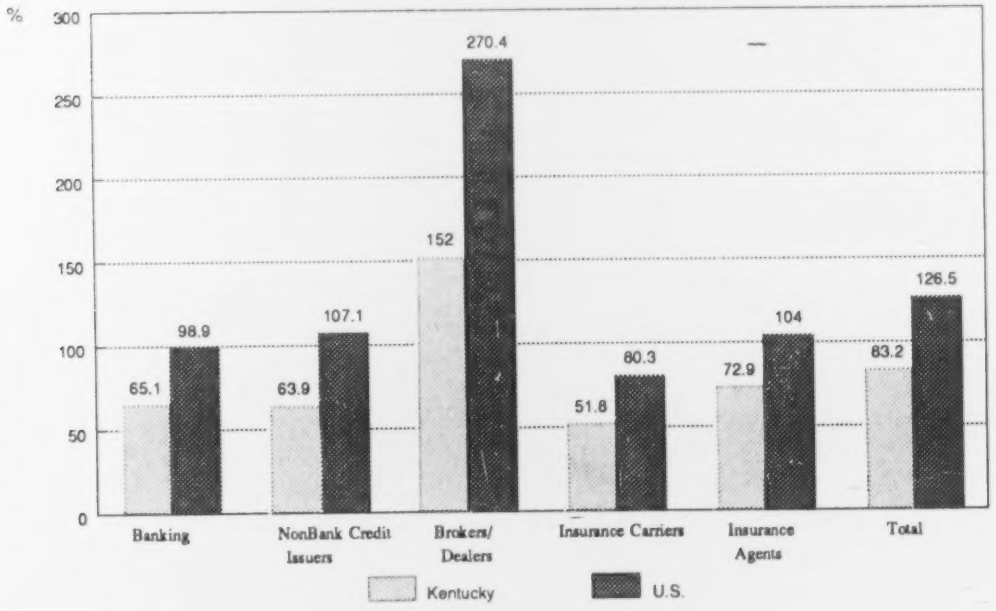
The earnings picture was somewhat similar to the jobs scene (Figure 2). Brokerage firms were the biggest gainers, for example. However, while earnings growth in banking was lower than the industry average, earnings growth in insurance firms was considerably closer to the industry average than was the case for job expansion. Earnings in Kentucky's financial services industries grew at rates from 30 to 140 percentage points lower than comparable national growth rates. The largest shortfall occurred in the brokerage sector and primarily reflected the very rapid expansion of earnings in this sector in the nation's financial centers of New York and Chicago.

"Financial services jobs pay more than services-producing jobs in general."

Who Earns What?

Jobs in the services-producing industries typically pay less than jobs in the goods-producing industries (e.g. mining, construction, and manufacturing). In 1987, for instance, average earnings per goods-producing job were $27,961 nationally ($26,229 in Kentucky) versus $19,661 for the services-producing industries ($16,341 in Kentucky). The "discount" in Kentucky wages relative to the national averages is smaller in the goods-producing than in the services-producing sector primarily because the goods sector is more heavily unionized than the services sector. Unionized salary scales tend to show less regional variation than nonunion scales.

FIGURE 2. FINANCIAL SERVICES EARNINGS GROWTH IN VARIOUS FINANCIAL SERVICES SECTORS, 1980-1987



Source: U.S. Department of Commerce, Bureau of Economic Analysis

As Table 1 shows, financial services jobs pay more than services-producing jobs in general. Securities and commodities brokers received the highest average earnings in 1987, followed by insurance-related employees and bankers. Nonbank credit issuers paid their employees sub-

TABLE 1.
AVERAGE EARNINGS PER JOB IN VARIOUS FINANCIAL SERVICES SECTORS, 1987

	US	KY	KY/US
TOTAL SERVICES-PRODUCING INDUSTRIES	$19,661	$16,341	0.83
TOTAL FINANCIAL SERVICES	30,526	23,160	0.76
Banking	25,278	20,117	0.80
Nonbank Credit Issuers	17,935	11,464	0.64
Brokers and Dealers	62,923	41,158	0.65
Insurance Carriers	29,035	24,840	0.86
Insurance Agents	27,063	23,719	0.88

Note: The figures for total services-producing industries in this table differ from those in Appendix Table 1 because the former include proprietors (self-employed persons) and the latter are for wage and salary jobs only.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

stantially lower salaries than their bank counterparts. Kentucky financial services earnings were below the national averages in every subsector, but were especially behind national scales in the brokerage and nonbank-credit sectors. Earnings are generally lower in Kentucky because the mix of rural to urban population is above the national averages, and wages are relatively lower in rural settings.

"Financial services do not appear to offer strong growth prospects for the near-term future."

Summary

Growth in jobs and earnings in the financial services sector in Kentucky over the period 1980-87 fell short of the national averages by one-third or more on average. All of the various subsectors of Kentucky's financial services industry lagged behind the national averages, but the insurance sector was especially weak in job generation.

Financial services do not appear to offer strong growth prospects for the near-term future. Large cutbacks in the workforce in the banking and brokerage sectors have been announced on the national level during 1988. The high degree of competition in financial services and the "stock market doldrums" following the market crash of October, 1987 are the primary factors behind these developments. The financial services sector, consequently, does not appear poised for a performance boom in the short-term future.

Analysts disagree about the longer-term prospects for the industry. Financial service "supermarkets" have not performed up to expectations, and some firms increasingly are inclined to focus on market "niches" rather than pursue broad-based diversification strategies. Sears' recent decision to divest its Coldwell Banker commercial real estate division reflects such a strategy. Large commercial banks continue, on the other hand, to pursue entry into investment banking to shore up sagging profits in their traditional lending business. While Congress failed to relax restrictions on combinations of investment and commercial banking during 1988, the Federal Reserve did begin to permit limited underwriting activities for bank holding companies. Money center banks have petitioned the Fed for still broader underwriting powers, given the failure of the Congress to act. Only the largest banking organizations are likely to take advantage of new underwriting powers, however, and as a result, the impact on Kentucky banks will be minimal. Smaller banks are interested more keenly in new powers in the insurance and real estate areas, but their efforts to gain entry have been blocked in Congress by the insurance and real estate lobbies. The good news for banks is that profitability from the "traditional" activities of lending and deposit taking appear to have "turned around" in 1988. And given the concerted efforts of banks to restrain expense growth, the longer-term view for banking looks more optimistic, provided the economy continues to grow and interest rate movements remain moderate.

[1]Services-producing industries include communications, transportation, utilities, finance, insurance, real estate, wholesale and retail trade, government, and services (which include business, agriculture, personal, professional, and health services).

[2]Real estate is also typically considered as part of the financial services sector. There are substantial problems with interpreting the jobs and earnings data from the Bureau of Economic Analysis for the real estate sector, however. Consequently, we omit the real estate sector in this part of the Annual Report.

*Donald J. Mullineaux is Professor of Finance and holder of the duPont Endowed Chair for Financial and Banking Services, University of Kentucky.

STATE FISCAL OUTLOOK: THE REVENUE SIDE

by James R. Ramsey*

Revenues which support the expenditures of the Federal, state and local government are derived from: 1) tax collections; 2) fees collected for services (e.g., admission charges to a national or state park); 3) intergovernmental transfers (e.g., revenues collected by the federal government and then transferred to either a state or a local government); and 4) borrowing. This section of the Annual Report focuses primarily on the tax component of the total revenues collected by the Federal government, the fifty states, and the Commonwealth of Kentucky for the period 1980 to the present. An attempt is made to identify revenue and tax trends and changes that have occurred over this time period. The U.S. fiscal year (FY) "runs" from October 1 through September 30 of each year, so that the most recent data available for the Federal government are for FY 1987 (October, 1986 - September, 1987). Most state governments (including Kentucky) operate on a fiscal year that "runs" from July 1 through June 30. Published data are available for the fifty states for FY 1987. Published data are available for Kentucky for FY 1988.

An Overview of Taxes in Our System of Fiscal Federalism

Table 1 shows the percentage distribution of total taxes collected in the U.S. by level of government for the period 1970 to 1986. The distribution of total taxes collected has shifted over time with the share of taxes collected by the Federal government declining, the share collected by the states increasing, and the share collected by local governments remaining relatively constant. This trend has created a greater fiscal burden on state governments.

TABLE 1. PERCENTAGE DISTRIBUTION OF TOTAL TAXES COLLECTED IN THE U.S. BY LEVEL OF GOVERNMENT, FY 1970-1986

FISCAL YEAR	FEDERAL	STATE	LOCAL
1970	62.2%	20.6%	16.7%
1980	61.1	23.9	15.0
1981	62.4	23.0	14.6
1982	60.3	24.3	15.4
1983	57.3	25.8	17.0
1984	56.4	26.8	16.8
1985	56.5	26.8	16.7
1986	55.9	27.1	17.2

Source: Significant Features of Fiscal Federalism, Advisory Commission on Intergovernmental Relations, June, 1987.

(The current trend is) "...a greater fiscal burden on state governments."

The Federal Revenue Structure

Table 2 shows total revenue collections by the Federal government (exclusive of borrowings) for the period 1980 to 1988. The decline in revenue for FY 1983 reflects the "Reagan tax cut." Despite this drop in 1983, the average annual increase in revenue collections has been 7.5 percent per year for the 1980-88 time period.

TABLE 2. FEDERAL BUDGET RECEIPTS FY 1980-1987 (billions of dollars)

FISCAL YEAR	RECEIPTS	PERCENT CHANGE
1980	$520.1	-----
1981	599.3	15.23%
1982	617.8	3.09
1983	600.6	-2.78
1984	666.5	10.97
1985	734.0	10.13
1986	769.1	4.78
1987	854.1	11.05

Source: Treasury Bulletin, U.S. Department of Treasury, various years.

Table 3 shows tax collections by the Federal government by source. During the 1980s, the trend, which actually began with the enactment of the Social Security Act during the 1930s, has been for an increased reliance on individual income taxes. One of the objectives of the Tax Reform Act of 1986 was to shift a larger share of the federal tax burden to corporations and to reduce the percentage of collections

received from individuals. It will be interesting to note in the future whether this, in fact, occurs.

TABLE 3.
FEDERAL TAX COLLECTIONS BY SOURCE
PERCENT DISTRIBUTION
FY 1980 AND 1987

	1980	1987
Individual Income*	69.6%	73.9%
Corporate Income	18.4	13.4
Sales, Excise	9.1	10.0
Gift, Death	1.8	1.5
Other	1.1	1.2

*Includes Social Security Taxes

Source: Significant Features of Fiscal Federalism, Advisory Commission on Intergovernmental Regulations, 1987, and Treasury Bulletin, U.S. Department of Treasury, 1987.

Fifty State Revenue Picture

Total tax collections for the fifty states were $131.1 billion in FY 1980 and $247.1 billion in FY 1987. The percent distribution of state government taxes by type of tax are shown in Figure 1 for both FY 1980 and 1987.

The figure shows that combined state individual and corporate income taxes generated more tax revenue than any other single source. This has been true since 1972 when income taxes replaced the sales tax as the primary tax source for the fifty states as a whole.

Specifically, in FY 1987 combined income taxes were the largest source of tax revenue in 30 states, general sales taxes were the major tax source in 18 states and the severance tax was the major revenue source for Alaska and Wyoming. Total state tax collections rose 8.3 percent in FY 1987 with tax revenues increasing for every category of taxes except severance taxes. The largest percentage increase occurred in insurance premium collections (16.3 percent increase over FY 1986), the individual income tax (12.7 percent), and the corporate income tax (12.3 percent). In FY 1987, 43 states experienced tax revenue increases and seven states experienced actual declines from1986 (Alaska, Louisiana, Montana, North Dakota, Oklahoma, West Virginia and Wyoming). A recent survey by the National Conference of State Legislatures found that 27 states made changes in their tax systems in FY 1988. Thirteen states increased taxes and 14 states lowered taxes and in almost all cases these adjustments were small.

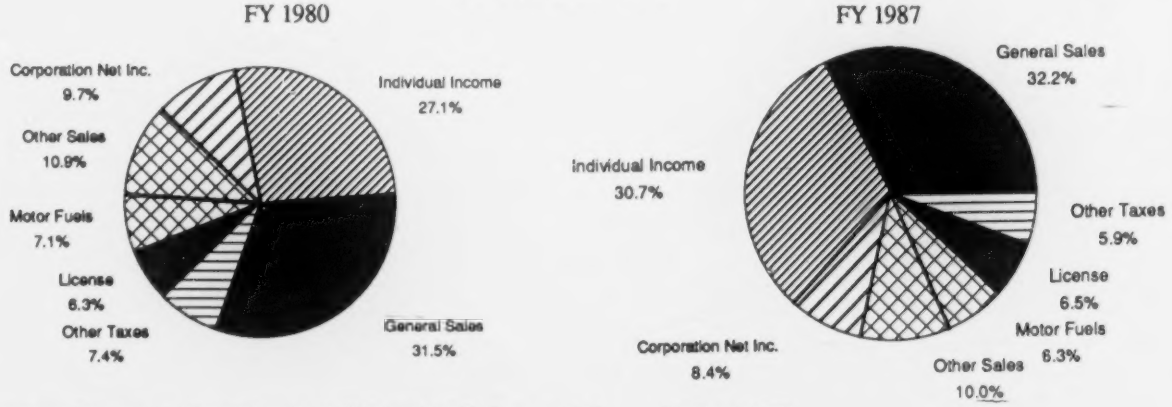
"...income taxes generated more tax revenue than any other single source."

Kentucky's Revenue Picture

Figure 2 shows the Kentucky General Fund for FY 1980 and 1988 by major tax source. The Kentucky General Fund excludes the gasoline excise tax and several other taxes earmarked for highway construction and maintenance. The trend in Kentucky is similar to that experienced in other states in the 1980s. For example, in 1988 Kentucky collected 41.6 percent of total taxes from the combined individual and corporate income taxes, while in 1980 these taxes accounted for 36.5 percent of the General Fund. Also, Kentucky receives a smaller percentage of taxes today from the general sales tax, severance tax and the corporate income tax than it did in 1980.

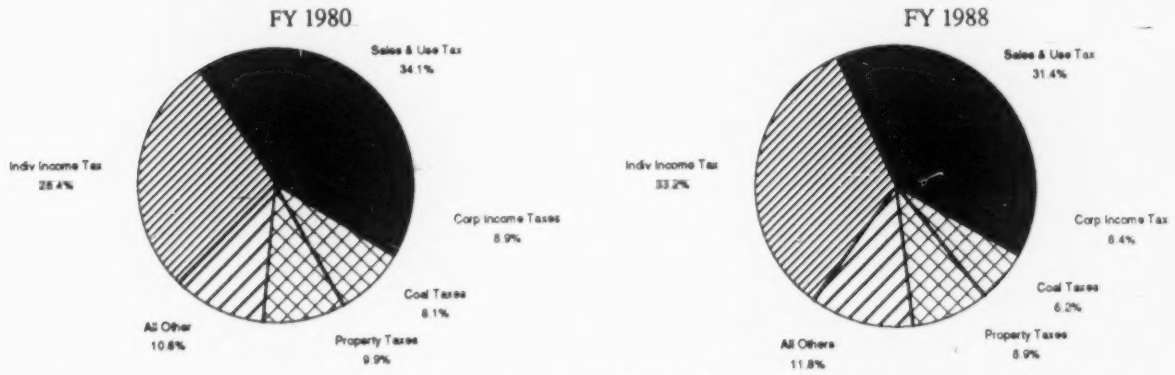
Table 4 shows the total receipts of the General Fund by year for the period 1980 to 1988 and the percentage growth in the General Fund over this period. In Kentucky, the individual income tax experienced the largest growth of the major taxes in FY 1988 (9.3 percent). Other growth rates for

FIGURE 1. PERCENT DISTRIBUTION OF STATE GOVERNMENT TAXES FOR THE FIFTY STATES BY TYPE OF TAX



Source: State Government Tax Collection in 1983 and 1987, Bureau of Census, 1984 and 1988.

FIGURE 2. KENTUCKY GENERAL FUND MAJOR REVENUE SOURCES



Source: Finance & Administration Cabinet's 1988 Annual Report of the Kentucky General Fund and Road Fund, Frankfort, Ky. 1988.

FY 1988 were: property tax (7.4 percent); sales tax (6.7 percent); coal tax (1.6 percent); and corporate income tax (-4.4 percent). Kentucky experienced negative growth in the corporate income tax during the last fiscal year which is noteworthy since: 1) in 1985 Kentucky increased its corporate tax rates; 2) one of the theories of the Tax Reform Act of 1986 was to shift a greater burden to corporate tax payers; and 3) the economy and corporate profits remained relatively strong in 1988. The behavior of the corporate income tax should be the basis for further analysis to understand this apparent inconsistency.

TABLE 4.
KENTUCKY GENERAL FUND
FY 1980-1988

FISCAL YEAR	RECEIPTS	PERCENT CHANGE
87-88	$3,030,205,722	5.4%
86-87	2,874,881,543	5.0
85-86	2,736,839,767	7.5
84-85	2,545,866,925	7.7
83-84	2,364,404,056	7.1
82-83	2,208,016,969	5.2
81-82	2,098,529,055	10.7
80-81	1,894,864,503	6.3
79-80	1,782,037,298*	4.9

*Utilities exempted from sales tax and HB 44 imposed.

Conclusions

Popular belief has been that income taxes were the domain of the Federal government and that sales taxes were the domain of state governments. The trend of recent years had been a shift of fiscal responsibility from the Federal government to the states. As a result, states in general, and Kentucky specifically, show a greater reliance upon income taxes as the major tax revenue source today than eight years ago.

It is interesting to note that in Kentucky, this greater reliance upon income taxes has occurred without any major tax increases but rather due to the numerous sales tax exclusions and tax expenditures, which have been legislated to decrease the regressiveness of the Kentucky tax system. In the last eight fiscal years, eight major sales tax exemptions have been legislated by the Kentucky General Assembly.

James R. Ramsey is Executive Director, Office for Investment and Debt Management, Finance & Administation Cabinet, Commonwealth of Kentucky.

THE KENTUCKY STATE BUDGET: ANALYSIS AND PERSPECTIVE

by Ronald J. Carson and William H. Hintze, Jr.*

The most important policy process in Kentucky state government is the development, adoption, and execution of the state budget. Since the budget is the principal instrument of resource allocation and policy planning, it reflects state government's public policy priorities. The Kentucky state budget during the 1980s has also reflected an evolution in this process which has accommodated changing fiscal, legal, and political environments. This section of the Annual Report summarizes Kentucky's recent budgetary history by focusing on changing priorities and expenditure trends; budget cutbacks; the changing status of the year-end balance; and other major budgetary developments. We attempt to place that history within the comparative context of the other forty-nine states. Finally, we offer some perspective regarding future budgetary challenges confronting the Commonwealth. The focus of the article is solely on the General Fund budget.

The Kentucky Experience

Figure 1 traces the annual increase in aggregate General Fund expenditures and related growth rates for fiscal years 1980 to 1988. These totals reflect actual expenditures and, therefore, are net of any revenue shortfalls and resulting budget cutbacks or adjustments. The figures also differ from the original enacted versions of the biennial budget.

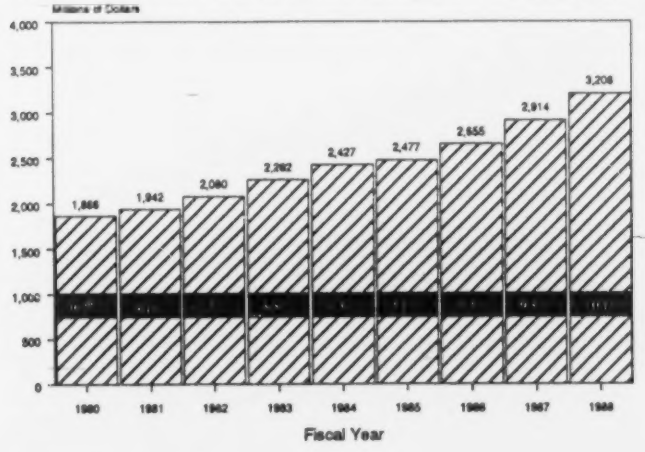
Figure 2 shows the distribution of General Fund expenditures in fiscal year (FY) 1980 and 1988. What is seen is a slight increase in the "share of the pie" for elementary and secondary education, as well as human resource programs, and a substantial increase for the programs administered by the Corrections Cabinet, i.e., prisons, probation and parole programs, local jail support activities, etc. When examined with respect to "share of the pie" comparisons, a slight decline in higher education is evident and a more substantial decrease in all other programs financed with state General Fund dollars (the "Other" category) is apparent. For actual nominal dollar amounts of General Fund expenditures, see Appendix Table 4.

Figure 3 employs the same data but reflects a slightly different perspective. As shown, between fiscal years 1980 and 1988, the Consumer Price Index (CPI) increased by 49 percent; however, total General Fund expenditures in the state budget increased by 72 percent. Of the five major categories, i.e., Education, Human Resources, Higher Education, Corrections, and All Other, every category increased at a rate greater than the CPI. Notably, Corrections increased more than 3 times as fast as total General Fund expenditures and 5 times as fast as the CPI, largely due to efforts to comply with judicial mandates. As another point of comparison, Kentucky per capita personal income increased 49 percent from 1980 to 1987.

Figure 4 shows the General Fund ending balance for the Commonwealth for FY 1980 through 1988. In the early 1980s, Kentucky had very small year-end balances. However, for FY 1985 through 1987, substantial surpluses were accumulated. The FY 1988 ending balance of approximately $32 million illustrates the spend-down of these previously accrued surpluses which became a major factor in limiting the state expenditure growth rate available for FY 1989.

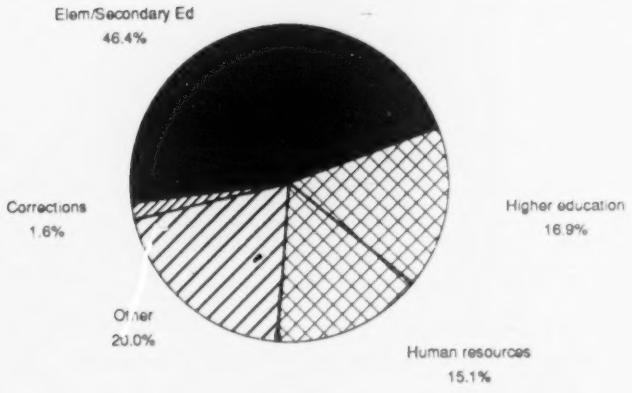
Table 1 chronicles almost a decade of General Fund revenue shortfalls in Kentucky. These shortages have necessitated budget cuts which have been formalized in official budget reduction actions, i.e., "Secretary's Orders," totalling some $1.072 billion from FY 1981 to 1988. As can be seen, the reductions have been frequent and often significant.

FIGURE 1
GENERAL FUND EXPENDITURES FY 1980-1988

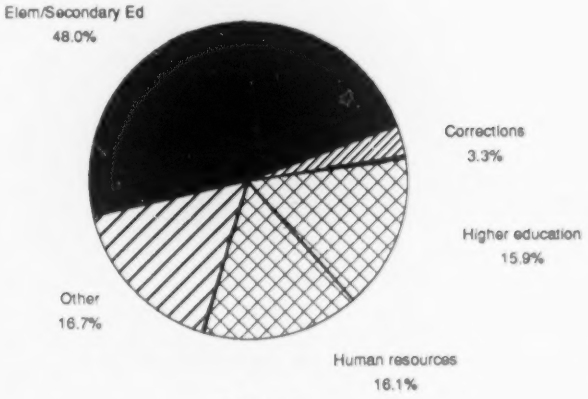


Source: Kentucky Financial Report, (Annual)

FIGURE 2
DISTRIBUTION OF GENERAL FUND EXPENDITURES



FY 1980



FY 1988

Source: Kentucky Financial Report, 1980 and 1988

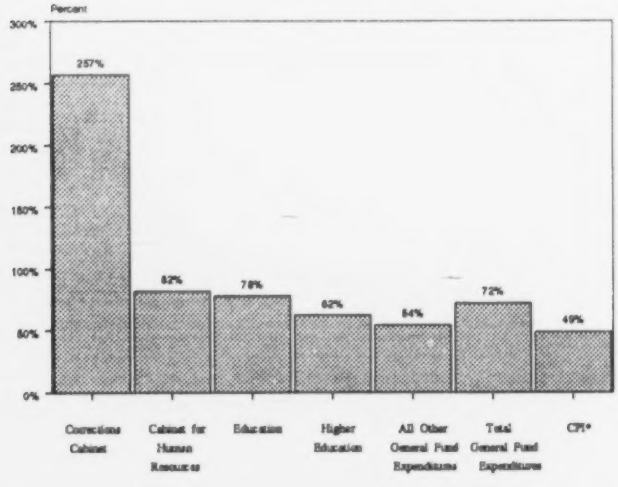
The Fifty-State Context

During FY 1988, 11 states reduced expenditures from their originally-budgeted levels in response to revenue shortfalls to eliminate an aggregate $903 million from enacted budget amounts. Formal cuts ranged from .2 percent in Arizona to 5.9 percent in Kentucky. In addition, according to the National Association of State Budget Officers (NASBO), a number of other states used a variety of informal and administrative mechanisms to ensure balanced budgets. As shown in Figure 5, FY 1988 saw a substantial decline in the number of states that experienced formal budget reductions in FY 1987.

Figure 6 indicates the relative size of ending balances of the fifty states and Kentucky during the 1980s. There are wide fluctuations in ending balances that may not relate directly to economic conditions, but are more likely related to the accuracy of revenue forecasting, major shifts in tax policies, spend-downs of previously accrued surpluses, or the existence of "rainy day" funds.

This figure also places the ending-balance figures in the context of total expenditures. For example, NASBO suggests that states use a 5 percent ending balance of total expenditures figure as a prudent "rule of thumb" for fiscal planning. However, during the 1980s, in only two fiscal

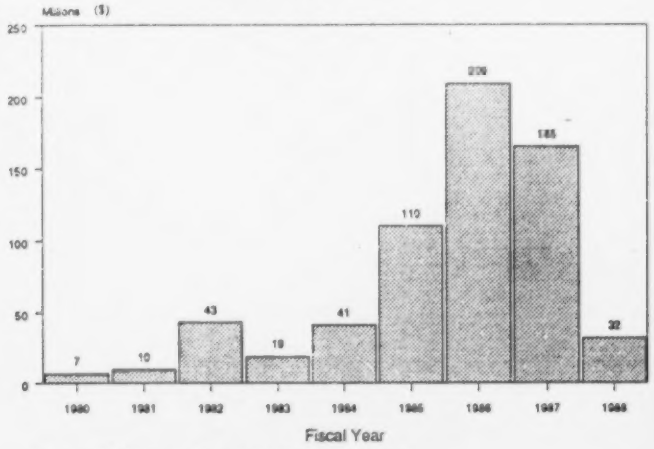
FIGURE 3
NOMINAL PERCENTAGE CHANGE IN
GENERAL FUND EXPENDITURES
FY 1980-1988



*Consumer Price Index calendar year changes converted to a fiscal year basis in this analysis.

Source: Kentucky Financial Report (Annual)

FIGURE 4
GENERAL FUND YEAR-END BALANCE
FY 1980-1988



Source: Kentucky Financial Report (Annual)

TABLE 1
GENERAL FUND HISTORY OF REVENUE SHORTFALLS
FY 1981-1988

Secretary's Order Number	Fiscal Year	Amount of Shortfall (In Millions)
81-151	1981	$114.0
82-96	1982	281.5
83-325	1983	123.3
83-325	1984	163.7
84-160	1984	118.1
87-462	1987	88.5
87-881	1988	129.8
88-432	1988	53.7
		$1,072.6

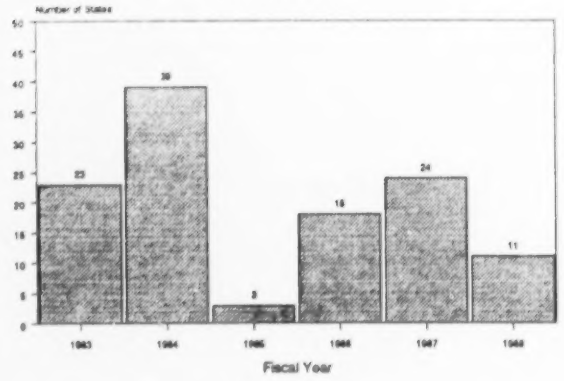
Source: Kentucky Financial Report, (Annual)

years, 1986 and 1987, was Kentucky able to meet or exceed this standard.

Again according to NASBO, the average size of year-end General Fund balances, as a percentage of expenditures, among the states for FY 1988 was projected to be about 2 percent as compared to 1.7 percent for FY 1987. Kentucky's ending balance percentage figure for FY 1988 was about 1 percent.

Figure 7 puts this situation into a broader national perspective. Kentucky was one of only 13 states which finished FY 1988 with an ending balance of 1.09 percent or less. By contrast, 37 states ended the fiscal year with larger balances as

FIGURE 5
NUMBER OF STATES REQUIRED TO REDUCE BUDGETS IN MIDYEAR

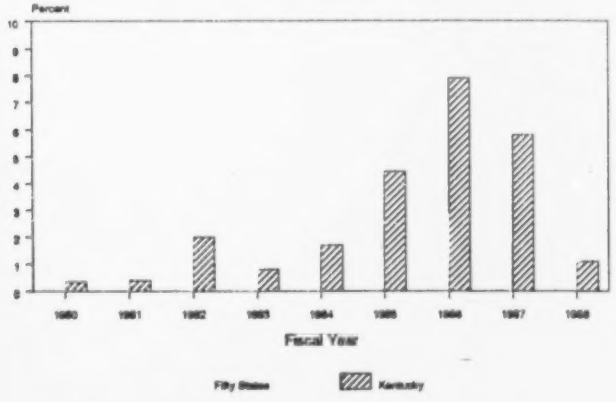


Source: NASBO Fiscal Survey of the States (Annual)

a percentage of expenditures. In fact, 18 of those states ended the year with balances of 5 percent or greater.

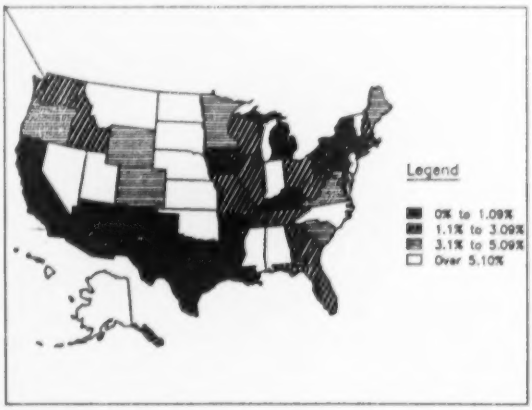
Figure 8 indicates the projected expenditure growth rate among the fifty states for FY 1989. Kentucky's growth rate of 3.2 percent places it among 17 states with projected growth rates in the range of 0-5 percent. In contrast, 31 states expect expenditure growth rates greater than 5 percent, with 15 states expecting growth rates in excess of 10 percent. However, two states, Wyoming and Alaska, project "negative growth." The fifty-state average is estimated by NASBO to be about 6.8 percent in FY 1989.

FIGURE 6
FY 1980-1988 ENDING BALANCE AS A PERCENTAGE OF TOTAL EXPENDITURES KENTUCKY AND THE FIFTY STATES



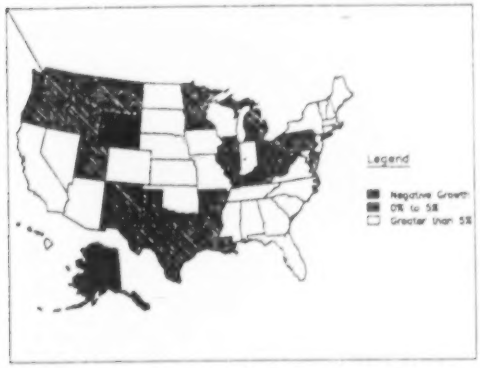
Source: NASBO Fiscal Survey of the States (Annual) and Kentucky Financial Report (Annual)

FIGURE 7
YEAR-END BALANCES AS A PERCENT OF EXPENDITURES FY 1988



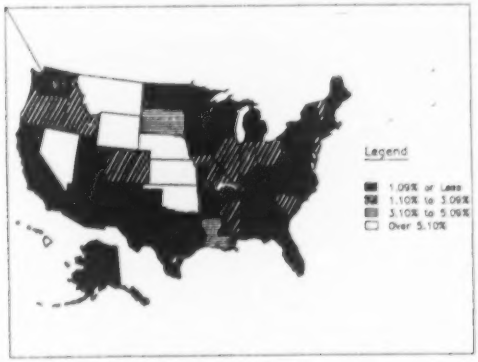
Source: NASBO Fiscal Survey of the States (Annual) and Kentucky Financial Report (Annual)

FIGURE 8
NOMINAL EXPENDITURE GROWTH IN
FY 1989 STATE BUDGETS



Source: NASBO Fiscal Survey of the States

FIGURE 9
YEAR-END BALANCES AS A PERCENT OF
EXPENDITURES
FY 1989



Source: NASBO Fiscal Survey of the States

Again, Kentucky's estimated General Fund expenditure growth rate of 3.2 percent in FY 1989 is primarily a function of having to make up for the imbalance in FY 1988 between recurring revenues and expenditures, i.e., "spending down" approximately $133 million of the previous year's accrued balance.

The enacted General Fund budget for FY 1990 in Kentucky projects a 5.2 percent expenditure growth rate. However, since most states are not on a biennial budget cycle that matches Kentucky's fiscal period, no estimates are available for the fifty-state average for 1990.

Projections for FY 1989 show a deterioration of the fiscal situation for the fifty states (Figure 9). The number of states with projected ending balances of 1.09 percent or less increases from 13 to 29 while the states projecting balances over 5.1 percent decreases from 18 to 8. Again, Kentucky falls within this most fiscally hard-pressed category; each fiscal year of the enacted 1988-90 budget projects an ending balance of less than 1 percent.

Appendix Table 5 shows the General Fund appropriation levels for the 1988-90 Kentucky state budget as enacted by the 1988 General Assembly. Both the proposed Executive Budget and the enacted Budget of the Commonwealth reflect spending plans emphasizing the priorities of education, economic development, and corrections. The enacted budget contains only a minimal reserve of $2 million per year as compared with total General Fund appropriations of $3.31 billion for FY 1989 and $3.48 billion for FY 1990.

The Next Decade: Trends and Challenges

The decade of the 1980s has been an uneven one for Kentucky's General Fund budget. It has been characterized by: (1) unpredictable and fluctuating revenue growth; (2) frequent mid-year expenditure cuts; (3)shrinking ending balances and surpluses; (4) recurring imbalances between revenues and expenditures; and (5) accelerating expenditure trends and court mandates in the areas of elementary and secondary education and corrections.

What can be expected as we approach the 1990s? We believe it safe to predict, based on state and national trends as well as judicial decisions, that the pressures for substantial expenditure growth in elementary and secondary education and corrections will continue and even accelerate. If the pattern of the 1980s is repeated--and it has been reinforced by recent judicial decisions--then all other expenditure areas of the General Fund must correspondingly shrink in their relative "share of the pie," absent new revenues. In addition, the 1988-90 enacted budget portends a virtual disappearance of any meaningful budgeted surplus or substantial ending balance at the conclusion of the 1980s. Therefore, as the decade of the 1990s commences, a substantial retrenchment in human resource, environmental, economic development, infrastructure, and higher education programs, to name a few, is the clear consequence of a mandated budgetary emphasis on elementary and secondary education and corrections within the Commonwealth's current General Fund revenue structure.

Note: All information in this paper was drawn from Governor's Office for Policy and Management internal reports, Commonwealth of Kentucky published documents, and National Association of State Budget Officers published data.

ACKNOWLEDGEMENTS

The authors wish to thank several colleagues from the Governor's Office for Policy and Management - Dionna Hatfield, John Hicks, Janet Phillips, David Reisman, and Bob Shimer for their assistance in the development of this paper. Any opinions or conclusions contained in this paper are the authors' alone and in no way reflect the position or policy of the Governor's Office for Policy and Management.

Ronald J. Carson and William H. Hintze are the two Deputy State Budget Directors, Commonwealth of Kentucky.

APPENDIX TABLE 1. AVERAGE ANNUAL EARNINGS PER JOB BY INDUSTRY FOR KENTUCKY AND THE UNITED STATES 1980 AND 1987

	Kentucky				United States			
	1980 Dollars	% of State Average	1987 Dollars	% of State Average	1980 Dollars	% of U.S. Average	1987 Dollars	% of U.S. Average
All-Industry Average	$12,988	100%	$17,575	100%	$14,088	100%	$20,482	100%
Goods-Producing Industries	17,214	133	23,539	134	17,647	125	25,342	124
Mining	23,176	178	30,791	175	22,956	163	32,996	161
Construction	16,331	126	19,039	108	17,490	124	23,140	113
Manufacturing	16,269	125	23,552	134	17,411	124	25,641	125
Durable Goods	17,330	133	25,539	145	18,623	132	27,357	108
Nondurable Goods	14,914	115	21,271	121	15,591	111	23,196	92
Services-Producing Industries	11,159	86	15,493	88	12,779	91	19,040	93
Transportation/ Communication	18,892	145	24,803	141	20,120	143	28,018	137
Trade	9,809	76	12,303	70	11,156	79	15,238	74
Wholesale Trade	15,582	120	21,061	120	17,998	128	26,045	127
Retail Trade	8,040	62	10,053	57	8,788	62	11,849	58
Finance/Insurance/ Real Estate	12,805	99	19,832	113	14,895	106	25,955	127
Services	9,164	71	13,940	79	11,383	81	18,081	88
Government	11,913	92	17,441	99	13,513	96	20,476	100

Notes: Data are for wage and salary earnings and jobs. Agricultural services are included with services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

APPENDIX TABLE 2.
SELECTED ECONOMIC INDICATORS, KENTUCKY AND THE UNITED STATES, 1980 AND 1987

	Kentucky			U.S.		
	1980	1987	% Change	1980	1987	% Change
Population (1,000)	3,661	3,727	1.8%	227,255	243,400	7.1%
Civilian Labor Force (1,000)						
Total	1,662	1,680	1.1	106,974	119,860	12.0
Employed	1,529	1,533	0.2	99,303	112,439	13.2
Agricultural	71	63	-11.5	3,366	3,210	-4.6
Nonagricultural	1,458	1,470	0.8	95,937	109,229	13.9
Unemployed	133	148	11.6	7.671	7,425	-3.2
Civilian Unemployment Rate (%)	8.0	8.8	--	7.0	6.2	--
Nonagricultural Wage and Salary Employment (1,000)						
Goods-Producing	390	365	-6.4	25,930	24.916	-3.9
Manufacturing	277	262	-5.4	20,423	19,125	-6.4
Services-Producing	901	1,047	16.2	70,480	83,989	19.2
Total	1,290	1,412	9.5	96,410	108,950	13.0
Manufacturing Earnings and Hours						
Average Weekly Earnings ($)	286.9	405.6	41.4	229 8	406.1	77.5
Average Weekly Hours	39.1	40.4	3.5	39 7	41.0	3.3
Personal Income						
Total (Billion $)						
Current $	29.40	44.95	52.9	2,254	3,768	67.2
Constant (1982) $	33.95	37.61	10.8	2,603	3,153	21.1
Per Capita						
Current $	8,022	12,059	50.3	9,919	15,481	56.1
Constant (1982) $	9,263	10,091	8.9	11,454	12.955	13.1
Consumer Price Index	---	---	---	82.41	113.63	37.9
Gross National Product (Billion $)						
Current $	---	---	---	2,732	4,527	65.7
Constant (1982) $	---	---	---	3,187	3,847	20.7

Sources: U.S. Department of Commerce, Bureau of Economic Analysis; and Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; Kentucky Cabinet for Human Resources

APPENDIX TABLE 3.
PER CAPITA PERSONAL INCOME AND UNEMPLOYMENT RATES FOR KENTUCKY COUNTIES
1986 or 1987, with county ranks and change since 1980

	Per Capita Personal Income			Unemployment Rate		
	1986 Dollars	Rank	1980-86 % Change (Constant $)	1987 Rate (%)	Rank	1987-80 Difference
Adair	9,065	74	16.9	8.6	41	1.8
Allen	9,964	49	8.4	8.8	43	-0.4
Anderson	11,181	29	6.1	7.1	20	0.6
Ballard	11,368	26	6.9	11.0	72	5.0
Barren	10,174	46	11.6	9.3	49	0.9
Bath	7,687	95	-3.9	13.5	94	-1.7
Bell	8,237	90	-1.0	13.5	93	3.6
Boone	12,828	10	6.1	6.0	12	0.0
Bourbon	11,586	24	-9.7	6.5	15	1.3
Boyd	11,629	23	-4.5	10.4	61	0.0
Boyle	11,177	30	10.2	9.7	51	2.3
Bracken	8,394	83	2.2	10.9	71	-1.2
Breathitt	8,398	82	1.1	15.9	110	7.1
Breckinridge	9,391	66	13.1	10.8	66	2.7
Bullitt	9,765	57	5.5	6.8	16	0.2
Butler	8,344	85	15.5	11.7	80	-2.6
Caldwell	10,638	37	4.6	10.7	64	-0.5
Calloway	11,730	21	16.6	4.9	7	-5.1
Campbell	12,525	11	12.3	7.1	22	0.5
Carlisle	11,291	27	25.1	13.1	90	1.4
Carroll	10,210	45	4.8	4.7	6	-0.6
Carter	7,390	101	-5.5	21.0	119	6.6
Casey	6,826	111	-1.8	10.8	68	2.3
Christian	10,740	36	15.0	8.0	30	-0.4
Clark	12,350	14	11.5	8.2	35	-0.3
Clay	7,302	104	2.6	13.9	96	3.2
Clinton	6,618	113	8.6	10.4	59	0.0
Crittenden	9,472	62	8.2	11.9	81	1.5
Cumberland	7,313	103	11.9	8.1	32	0.4
Daviess	12,416	13	4.9	10.6	63	3.3
Edmonson	6,188	115	-7.7	15.9	111	-3.7
Elliott	6,104	117	-2.8	21.7	120	11.7
Estill	7,929	94	5.3	14.4	100	2.6
Fayette	15,134	2	16.5	4.5	2	0.3
Fleming	8,353	84	5.3	9.0	46	0.8
Floyd	8,817	79	-7.2	14.1	98	4.4
Franklin	13,122	8	7.4	5.2	8	-0.3
Fulton	12,420	12	17.7	9.8	52	-0.1
Gallatin	9,731	58	-0.7	11.1	74	2.5
Garrard	9,886	55	6.2	11.6	77	3.1
Grant	9,952	50	-0.2	8.2	34	0.7
Graves	11,641	22	12.4	7.9	29	-6.5
Grayson	8,411	81	11.1	11.7	79	2.0
Green	9,055	75	6.7	10.3	57	3.7
Greenup	10,854	34	-1.4	10.8	67	2.6
Hancock	11,187	28	1.5	11.9	82	5.3
Hardin	10,096	47	11.2	6.0	13	-2.0
Harlan	8,208	92	-11.6	16.4	113	6.7
Harrison	10,483	39	2.5	8.5	39	2.3
Hart	7,942	93	-0.9	12.0	83	0.5
Henderson	13,254	6	5.7	10.4	60	3.8
Henry	9,882	56	-3.1	7.1	21	-0.5
Hickman	10,606	38	15.5	8.0	31	-2.0
Hopkins	13,368	5	6.4	8.6	42	1.6
Jackson	5,997	118	4.5	13.1	89	-1.3
Jefferson	14,482	3	10.2	7.3	23	-0.7
Jessamine	11,091	32	8.5	5.4	9	1.1

	Dollars	Rank	Constant ($)	Rate (%)	Rank	Difference
Johnson	9,244	68	-6.8	15.6	108	6.2
Kenton	12,885	9	13.8	6.0	11	0.0
Knott	7,170	106	1.3	15.7	109	2.5
Knox	7,444	98	5.3	10.9	70	1.0
Larue	9,910	54	3.6	7.9	28	0.7
Laurel	9,406	65	7.0	10.7	65	2.6
Lawrence	8,278	87	6.2	14.2	99	1.1
Lee	6,663	112	6.7	14.9	102	-0.5
Leslie	6,480	114	-3.9	14.1	97	5.1
Letcher	7,462	97	-5.3	16.6	115	1.5
Lewis	7,427	99	0.3	13.3	92	1.5
Lincoln	8,270	89	9.5	15.2	104	2.1
Livingston	10,798	35	4.5	11.1	73	2.2
Logan	9,951	51	10.0	8.5	40	-1.7
Lyon	9,202	70	5.1	8.3	38	0.6
McCracken	13,843	4	9.5	8.2	36	1.6
McCreary	5,303	120	-3.4	20.5	118	6.5
McLean	10,959	33	6.6	15.0	103	6.5
Madison	9,937	52	12.3	5.7	10	-1.4
Magoffin	7,021	109	-2.9	20.1	117	7.9
Marion	8,969	76	14.1	12.9	88	2.6
Marshall	11,452	25	3.5	10.9	69	-5.1
Martin	9,157	72	-12.0	13.7	95	9.7
Mason	10,263	43	3.6	7.9	27	2.3
Meade	9,178	71	12.6	10.5	62	2.0
Menifee	5,436	119	-5.5	15.4	105	-4.1
Mercer	11,748	19	5.9	10.2	56	2.9
Metcalfe	7,206	105	6.7	10.1	55	0.9
Monroe	8,912	78	14.2	7.1	19	-2.4
Montgomery	9,511	61	1.2	14.8	101	2.9
Morgan	7,058	107	0.8	18.9	116	9.2
Muhlenberg	10,336	41	0.1	12.5	85	3.7
Nelson	10,438	40	4.9	9.9	54	-1.7
Nicholas	8,964	77	3.4	9.2	47	3.1
Ohio	9,580	59	-0.9	16.0	112	7.1
Oldham	13,198	7	6.8	4.7	4	-1.0
Owen	8,334	86	2.7	6.1	14	0.1
Owsley	6,127	116	15.1	11.5	75	-1.4
Pendleton	9,443	63	-1.8	9.6	50	2.3
Perry	9,991	48	-4.0	13.2	91	3.2
Pike	9,572	60	-8.9	15.5	107	9.2
Powell	7,473	96	2.3	15.4	106	0.5
Pulaski	9,430	64	3.9	9.8	53	-0.5
Robertson	7,342	102	1.0	12.7	86	-2.2
Rockcastle	7,390	100	6.9	10.4	58	-0.5
Rowan	8,222	91	3.4	8.9	45	1.1
Russell	8,274	88	13.5	8.1	33	-7.6
Scott	12,144	17	15.3	7.7	25	2.8
Shelby	12,145	16	5.0	4.7	5	-0.6
Simpson	11,103	31	14.5	7.9	26	-1.6
Spencer	9,280	67	-5.7	6.9	17	-2.3
Taylor	9,935	53	5.9	7.0	18	1.9
Todd	9,109	73	13.2	7.5	24	-5.4
Trigg	11,811	18	8.6	8.9	44	-0.5
Trimble	9,243	69	4.8	3.9	1	-5.7
Union	12,246	15	3.1	8.3	37	4.2
Warren	10,317	42	0.2	9.3	48	1.6
Washington	10,215	44	10.9	12.1	84	2.7
Wayne	6,834	110	-0.1	11.5	76	0.7
Webster	11,748	20	2.2	11.6	78	4.6
Whitley	8,777	80	1.5	12.9	87	0.9
Wolfe	7,030	108	0.9	16.5	114	3.2
Woodford	17,910	1	33.1	4.5	3	0.8
KENTUCKY	11,335		7.1	8.8		0.8

Sources: Kentucky Cabinet for Human Resources, U.S. Bureau of Economic Analysis, and U.S. Bureau of the Census

APPENDIX TABLE 4
ACTUAL GENERAL FUND EXPENDITURES
(millions of dollars - rounded)
FY 1980-1988

	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
EDUCATION	$866	$919	$952	$1,060	$1,144	$1,162	$1,218	$1,387	$1,540
School Foundation Program	657	708	735	808	855	870	894	975	1,059
Power Equalization	31	34	31	37	39	39	41	69	96
Other Department of Education Programs	101	88	93	110	125	122	148	173	204
School Building Authority/ School Facilities Construction Commission	0	0	2	4	6	6	6	7	12
Teachers' Retirement System	77	89	91	101	119	125	129	163	169
HIGHER EDUCATION	315	320	350	381	419	427	454	477	509
HUMAN RESOURCES	283	323	345	358	390	392	423	466	516
CORRECTIONS	30	38	46	49	61	80	91	95	107
OTHER	372	342	387	414	413	416	469	489	536
GRAND TOTAL	$1,866	$1,942	$2,080	$2,262	$2,427	$2,477	$2,655	$2,914	$3,208

Source: Kentucky Financial Report (Annual)

APPENDIX TABLE 5.
1988-1990 GENERAL FUND APPROPRIATIONS
ENACTED BY MAJOR CABINET AREA

	FY 1989	FY 1990
Government Operations	$164,366,000	$177,175,500
Corrections	118,482,500	129,171,300
Economic Development	52,210,400	57,806,400
Education and Humanities	1,572,121,300	1,652,646,900
Energy	2,818,400	2,912,500
Finance and Administration	16,557,500	19,923,000
Higher Education	560,075,000	593,519,300
Human Resources	548,831,300	566,360,600
Justice	30,221,200	31,666,800
Labor	1,634,500	1,688,600
Natural Resources and Environmental Protection	30,759,100	32,004,400
Public Protection and Regulation	26,267,000	27,656,300
Revenue	47,860,800	49,015,200
Tourism	33,106,400	34,897,300
Transportation	888,900	910,600
Capital Construction	4,918,900	630,000
Legislature	17,326,800	21,121,800
Judiciary	77,787,200	81,498,100
Education Planning Commission	100,000	100,000
Fish and Wildlife Transfer	2,000,000	
Budget Reserve	2,000,000	2,000,000
Total General Fund Enacted Appropriations	$ 3,310,333,200	$ 3,482,704,600

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